

ALASKA  
AEROSPACE

Onward & Upward



AURORA  
Launch Services



2017 Annual Report

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# Alaska Aerospace Mission Statement

Providing excellence in  
space launch operations

GMT  
264 22 21 09

RANGE  
264 14 21 09

MISSILE  
264 14 21 09



## Alaska Aerospace at a Glance

Alaska Aerospace is an industry leader in commercial and government rocket launch operations, committed to excellence in space launch operations. Our primary service focuses on the unique capabilities of polar orbits from our Pacific Spaceport Complex – Alaska (PSCA). Alaska Aerospace is a state owned public corporation established to develop the aerospace industry in Alaska through public and private sector cooperation in education, training, research, workforce development, investment, and aerospace centric incentive programs which creates a viable, sustaining, in-state aerospace business sector. Head-quartered in Anchorage, Alaska, Alaska Aerospace has offices in Kodiak, Alaska and Huntsville, Alabama.



# Foreward

## Onward and Upward

By Tom Moyer

'Spaceport Alaska' was the initial name for the Alaska Aerospace Corporation. In 1990, while identifying the University of Alaska Fairbanks' Poker Flat Research Range as a major economic asset in my House District, I happened to read a USA Today story about a newly created 'Spaceport Florida Authority'. I thought – why not in Alaska? Florida is ideal for launching equatorial orbiting satellites, wouldn't Alaska be ideal for launching low-earth orbit payloads and tracking polar orbiting satellites?

I introduced a bill creating 'Spaceport Alaska' to thrust Alaska into commercial space activities by building on its knowhow in launching research rockets and tracking satellites. By the time the bill passed, the name was changed to the Alaska Aerospace Development Corporation (AADC) to better reflect its broad mission and to emphasize its business orientation.

Aerospace executives and experts from the university and the state commerce department helped sculpt the bill and sharpen its purpose. From the get-go, AADC was conceived as a minimum bureaucracy state run entity, unassociated with the federal government.

Not long after its offices opened, the corporation helped draw private satellite tracking stations to the Fairbanks area. They are still contributing wages, rents and taxes to the economy. Kodiak materialized as a superior location for launches. The feasibility study identified the small lift commercial rocket and micro-satellite sector – not the Defense Department – as the preferred long-term

customer base. As with many emerging markets, predictions were not precise. Fortunately, AADC attracted launches from the Air Force, Army and NASA as well as federal funding while the commercial market matured.

More recently, the Board of Directors and the Executive team displayed remarkable foresight by investing in infrastructure improvements, spinning off its launch services to a subsidiary, investigating equatorial launch sites, and pursuing strategic partnerships.

Today there is an unprecedented bloom of privately held successful startup rocket firms that seek value and demand the streamlined transactions that Alaska Aerospace offers. Inked contracts for launches, launch services, mission planning, tracking, linked with frequent inquiries about Pacific Spaceport Complex Alaska's capabilities, put Alaska Aerospace on firm financial footing and positions it to play a central role in expanding Alaska's economy.

When the bill passed, I said I was convinced that "...Alaska, the Last Frontier, will become an international leader in the Final Frontier." I believe that vision more than ever. Alaska Aerospace is rebooted, reshaped and reaping market share.

*Tom Moyer served in the 17th Alaska Legislature representing Fairbanks. His bill, HB46, created the AADC. He later served on AADC's board, the Fairbanks Economic Development Corporations' SpacePark Task Force, was appointed to the U.S. Commercial Space Transportation Advisory Committee, and was a Special Assistant to Governor Tony Knowles for Aerospace matters.*



# Introduction

Alaska Aerospace has a history of providing reliable launch services into orbital and suborbital tracks, as well as conventional polar and unique orbits. PSCA is a state-of-the-industry spaceport which was the nation's first commercial spaceport not collocated on a federal range. It is located about 44 road miles south of the city of Kodiak at Narrow Cape on Kodiak Island.

PSCA was built with a combination of state and federal funds. Initial State of Alaska funding resulted in significant Federal funding to build and expand the launch complex. To present, a total of \$410.7M gross revenues have been generated by PSCA. Alaska provided \$24.0M (6%) in capital investments and \$37.3M (9%) in operations and sustainment funding. The federal government has provided a total of \$167.0M (40%) in grants, while launch service customer contracts have generated \$148.6M (37%). Reconstruction funding provided an additional \$33.7M (8%).

As the international aerospace market has evolved, Alaska Aerospace has made adjustments to our structure and operations to meet the demands of the industry. While the past twenty years established Alaska Aerospace as a

premier launch service provider for the US government, space launch requirements are trending towards lower cost, greater schedule reliability, and flexibility offered by non-government facilities serving non-government, commercial launch providers. Our focus in 2017 was to procure long-term agreements with the Federal government for launches from PSCA, while concurrently securing "New Space" small and ultra-small commercial launch contracts.

As the year came to an end, we achieved these objectives with launches by the Missile Defense Agency (MDA); support to Rocket Lab USA in launches from their New Zealand facility; and the signing of commercial launch contracts with other new entrants to the commercial launch business. After a number of years with no launch customers and rebuilding damaged facilities, our 2017 financial position posted solid improvement over 2016 as a result of renewed launch contracts with both government and commercial customers. Excluding depreciation, Alaska Aerospace realized a \$2.7 Million non-operating income, ending the year with a \$2.9 Million net increase in unrestricted equity over 2016.



AAC

Deployed antennas in New Zealand.

# Board of Directors



## DR. ROBERT P. MCCOY, CHAIR

Director, Geophysical Institute  
University of Alaska Fairbanks

*Fulfills requirement for the membership of the  
Geophysical Institute of the University of Alaska*



## BRUCE ABEL

President, Don Abel Building Supplies  
Past President, Juneau Chamber of Commerce

*Fulfills requirement for a public member*



## LINDSAY C. KNIGHT, VICE CHAIR

Kodiak Athletic Club, Owner  
Past President – Kodiak Chamber of Commerce.

*Fulfills requirement for a state resident, and  
a borough resident with significant experience  
in the business sector*



## LEE RYAN

Vice President, Ryan Air

*Fulfills requirement for a public member with  
significant experience in growth and marketing*



## DR. JIM JOHNSEN

President, University of Alaska Statewide System

*Fulfills requirement for membership of the  
president of the University of Alaska*



## LAUREL HUMMEL

The Adjutant General, Alaska National Guard  
Commissioner, Department of Military and Veterans  
Affairs – State of Alaska.

*Fulfills requirement for the membership of the  
Commissioner or Designee of the Department of  
Military and Veterans Affairs*



## DR. RONALD M. SEGAL

Vice President for Energy, Environment, and  
Applied Research at the Colorado State University /  
Former Under Secretary of the U.S. Air Force /  
Two time astronaut on Space Shuttle Discovery /  
Major General USAF (Ret)

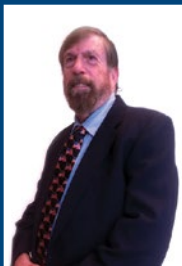
*Fulfills requirement for experience in the commercial  
space industry and operational space experience*



## GARY L. STEVENS – SENATOR

Ex-Officio  
Alaska State Senate

*Fulfills requirement for the membership  
of the state senate*



## THOMAS D. WALTERS

Maritime Helicopters, Owner (Kodiak)

*Fulfills requirement for a state resident, and a  
borough resident with significant experience in the  
business sector*



## LOUISE STUTES – REPRESENTATIVE

Ex-Officio  
Alaska House of Representatives

*Fulfills Requirement for the membership of the  
state house of representatives*



# Chairman of the Board of Directors Letter

To Governor Bill Walker, the state Legislature, and the People of Alaska

It is my distinct pleasure to present the Alaska Aerospace Corporation 2017 Annual Report, "Onward & Upward."

Following the 2014 launch failure, our 2015 Annual Report was titled "Year of the Phoenix" to signify our company's transformation and rebuilding of the damaged launch facilities. The 2016 Annual Report theme was "Taken Flight" to announce the completion of reconstruction at the Pacific Spaceport Complex – Alaska (PSCA) and to confirm that Alaska Aerospace had launched a new dawn in aerospace activities in Alaska. This year, I am pleased to announce that our strategy is working and through the dedication of our highly skilled workforce, we accelerated our growth beyond expectations.

Alaska Aerospace today is a vastly different company from just three years ago. No longer dependent on state financial support, the Alaska Aerospace leadership team has created a company that is adaptable to the rapidly changing aerospace industry, focused on the rocket launch business. This was accomplished through significant downsizing of the state workforce, coupled with the establishment of Aurora Launch Services, a wholly-owned Alaska Aerospace subsidiary specializing in providing launch services to space launch customers worldwide. This innovative concept provides Alaska Aerospace with greater flexibility to market services to both government and commercial customers by offering low cost, highly reliable services on a contract basis.

We recognize our defense customer's require highly reliable services that can be delivered in a tight budget environment. Alaska Aerospace has been a leader in developing affordable solutions. We are very pleased that the Missile Defense Agency (MDA) expanded our current multi-year contract to include additional operations from PSCA in future years.

Nothing can be accomplished without a dedicated team. We are fortunate to have an outstanding leadership team, as well as some of the best employees and contractors in the aerospace business. Their unified approach to business development, supported by delivering the highest level of services, was instrumental in attracting the first truly commercial launch operators to PSCA in 2017. As the year came to an end, we had signed commercial launch service contracts with new small and ultra-small launch vehicle operators, setting the stage for a very active 2018. This is an exciting change from years past and demonstrates our commitment to providing highly reliable, industry competitive launch solutions to our customers.





I want to acknowledge the solid support our congressional delegation provided to Alaska Aerospace, as we worked to secure a \$5.0 Million federal grant for infrastructure improvements specifically designed to support national security space programs at PSCA. Senators Lisa Murkowski and Dan Sullivan, joined by Congressman Don Young, were instrumental in successfully including this funding in the FY 2017 budget, funds which are being used for new technologies that ensure we continue to meet the requirements of our domestic and international customers and keeping PSCA one of the most modern launch complexes in the United States.

Department of Military and Veterans Affairs (DMVA) Commissioner Laurie Hummel and Deputy Commissioner Bob Doebl also provided exceptional support on behalf of Alaska Aerospace during this year. Their efforts were instrumental in resolving numerous state government issues which provided Alaska Aerospace with greater flexibility to focus on business development and execution. The alignment of Alaska Aerospace under DMVA for state administrative purposes has shown to be a positive relationship and is yielding significant benefits for the company.

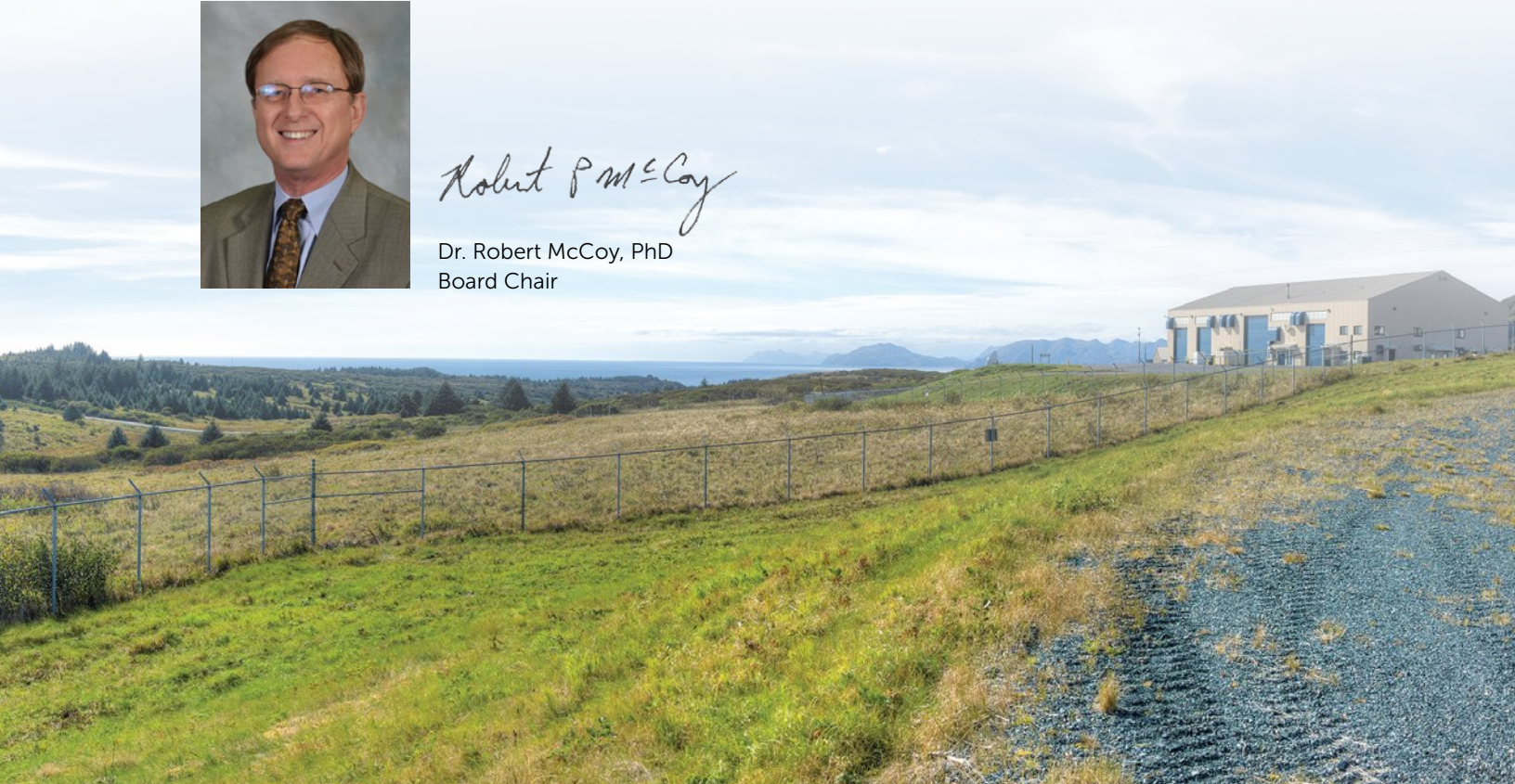
Culminating the busiest year in Alaska Aerospace history, 2017 has provided us the foundation for continued growth and expansion in 2018. As we reshape Alaska Aerospace into a more public-private partnership relationship with the state, we will remain focused on our core competencies of serving the space launch community with the highest caliber of services, at the most cost competitive price. Our goal is to diversify our space launch capabilities, making Alaska Aerospace a world leader and generating positive economic benefits for Alaska.

We end 2017 in a strong financial position. This has been a remarkable year of achievements and exceeding in financial expectations. We look forward to 2018 with optimism that we have positioned Alaska Aerospace well to remain extremely competitive in securing additional government and commercial business. Alaska is an aerospace state and Alaska Aerospace is leading the way in creating a positive business climate favorable to attracting more aerospace commerce to our state in future years.



A handwritten signature in black ink that reads "Robert McCoy".

Dr. Robert McCoy, PhD  
Board Chair



# Executive Perspective

What an exciting year 2017 has been for Alaska Aerospace. Our objectives for the year were to grow our core business by:

- Delivering operational excellence;
- Creating customer satisfaction at every level;
- Expanding our service capabilities; and
- Providing affordable launch services to our government and private sector customers.

We exceeded expectations, as this year proved a turning point in the company's history. We ended the year by:

- Improving our financial position, increasing our Total Net Position by \$11.4 Million over 2016, which included an increase in Net Cash For Operating Activities of \$2.9 Million;
- Successfully supporting multiple launches of the Terminal High Altitude Area Defense (THAAD) from PSCA for the Missile Defense Agency;
- Expanding our contract with the Missile Defense Agency to include supporting additional test launches;
- Initiating international operations with deployment of the Range Safety and Telemetry System (RSTS) to New Zealand to support multiple launches of the Rocket Lab Electron rocket from their Launch Complex One;
- Signing the first truly commercial launch contracts with private sector companies for launches from PSCA beginning in 2018;
- Starting development of facilities improvements to support liquid fueled launch vehicle operations from PSCA in 2018;
- Securing a federal appropriation for infrastructure improvements designed to enhance our launch capabilities for both government and commercial customers; and
- Advancing our prospects for development of an equatorial launch site to complement our polar capabilities at PSCA.

Alaska Aerospace is blessed to have some of the finest employees and contractors in the aerospace business working for our company. Had it not been for their unselfish and dedicated commitment to Alaska Aerospace, we would never have been able to achieve this remarkable comeback. As you read through this report, we will identify some of the super stars that made 2017 such a successful year. But in reality, it took everyone in the company to band together for Alaska Aerospace to succeed in these accomplishments.

Performance is the hallmark of a quality company. Performance can be measured in a number of ways, but for our customers it means meeting launch dates and budgets. As the industry makes a transition to smaller and lighter satellites, with greater capabilities, the opportunity for us to bring small rocket launches to Alaska increases. This year we broke new ground, signing our first launch contracts with private sector companies that use small liquid fueled rockets to put payloads into orbit. We have started the infrastructure modifications to support liquid fuel rockets, and are changing our fee structure to allow commercial customers more flexibility in achieving affordable facility usage. This is intended to make small launch cost competitive and drive greater demand for the use of PSCA by the commercial market.

As our nation faces external security threats and budgets constraints, it requires that government agencies also receive maximum value for their investments, so we continue to evaluate ways we can lower the cost of operations at PSCA for our government customers. We understand the importance of creating value to our customers, so our team sharpened our pencils and met MDA requirements showing a tangible cost saving to the government by executing tests from Alaska. The end result was our \$80.4 Million multi-year, multi-launch, Indefinite Delivery/Indefinite Quantity (IDIQ) contract we are now executing with MDA.



As the year came to an end, the Alaska Aerospace Board of Directors adopted the Articles of Organization and Operating Agreement for establishing Aurora Launch Services, Limited Liability Company, as a wholly-owned Alaska Aerospace subsidiary. This was a major step towards creating a more cost effective, private sector focused business capable of providing niche contract launch services to spaceports worldwide. As the emerging small launch vehicle market grows, Aurora Launch Services will be a major part of Alaska Aerospace's efforts at creating an Alaska based, sustainable aerospace business that serves a global market.

We achieved our goal of securing a positive and stable income from both government and commercial customers. We ended 2017 with total assets valued at \$92.8 Million, and a Net Position increase of 14.9% over 2016. The staff of Alaska Aerospace wants to thank our Board of Directors for providing the leadership that allowed us to meet these objectives. Their corporate vision and oversight were significant contributors to our achievements and signify our commitment to strong corporate governance. We also want to thank Governor Walker for his support in our efforts to transform Alaska Aerospace into a more responsive commercial company, with less dependency on state government, by allowing us to expand our business development efforts beyond the traditional services provided by Alaska Aerospace at PSCA. This TEAM approach has resulted in the rebirth of an aerospace company in Alaska at a time when our state must diversify our economy and provide alternative employment beyond gas and oil.

In 2018 we intend to strengthen our market development accomplishments by building on the successes of 2017. We will pursue additional national security missions, while concurrently expanding our commercial launch capabilities at PSCA, and continuing our efforts to develop equatorial launch capability within the Pacific Region. All this while strengthening our financial position by conservatively managing our budget, making targeted acquisitions that are capability multipliers, and maximizing the return on investments in both retained earnings and cash flow.

Our innovative development plans for diversifying AAC, coupled with effective public relations has positioned us for sustained revenue growth by increasing demand in excess of previous projections. As you read through this report, I am confident you will agree with me that 2017 was a banner year for Alaska Aerospace, and we look forward to 2018 eclipsing our 2017 performance. Thank you for taking the time to read this year's annual report.



AP Photo/Mark Thiessen

Craig E. Campbell  
President and Chief Executive Officer

# Our Strategy and Markets



Over the past few years, Alaska Aerospace has adapted to market changes in the space launch industry, created by an emerging need for low cost commercial launch services that have become highly competitive internationally. The rapid development of low cost commercial satellites and supporting infrastructure has placed pressure on legacy launch site operators to be able to provide low cost launch services with schedule assurance. It is that requirement which provides Alaska Aerospace with a strategic opportunity to utilize our existing infrastructure and organization towards securing a sustainable share of the new commercial space market, while concurrently offering government customers more streamlined and cost effective services.

A significant factor in our success during 2017, and key towards our future growth, is the direction we are taking to reshape from a state owned corporation into a more public private partnership relationship. We have not received any state operating funds since 2014. By restructuring, we have the potential to further lower costs and expand our capabilities targeted to the needs of the new commercial space market. This will further ensure that Alaska Aerospace becomes more independent of state financial needs in future years. Established in 2017, Aurora Launch Services was the first step in creating a diversified and adaptable company to meet these future market demands.

This year marked the most activity Alaska Aerospace has ever experienced in our nearly twenty years of existence.

Working closely with the new small and ultra-small commercial launch vehicle companies, Alaska Aerospace is making both facility and organizational changes to meet the industry expectations for future business. This can be seen in the infrastructure changes done in 2017 to provide liquid fuel capability for our customers at PSCA. We are also highly sensitive to the requirements of our government customers and completed facility improvements to PSCA in 2017 to meet their mission requirements. We also identified a number of other facility modifications that will be completed in 2018 to ensure that Alaska Aerospace remains competitive in meeting near and long term launch requirements of our government customers.

From a strategic position, AAC formed a solid baseline in 2017, with government launches, commercial development, and international operations occurring simultaneously. This year marked the most activity Alaska Aerospace has ever experienced in our nearly twenty years of existence. It proved that we have the capability to adapt to market changes and to be competitive. As we continue this transformation, we will create even greater value to our customers by:

- Continuing to make targeted infrastructure investments that provide enhanced capabilities and lower launch costs;
- Expand our capabilities through partnerships and strategic alliances with other spaceports and commercial companies that share our vision;
- Pursue opportunities to increase our market share; and
- Finalize structural changes to the company that increase revenue growth while maintaining a competitive pricing model for customers.



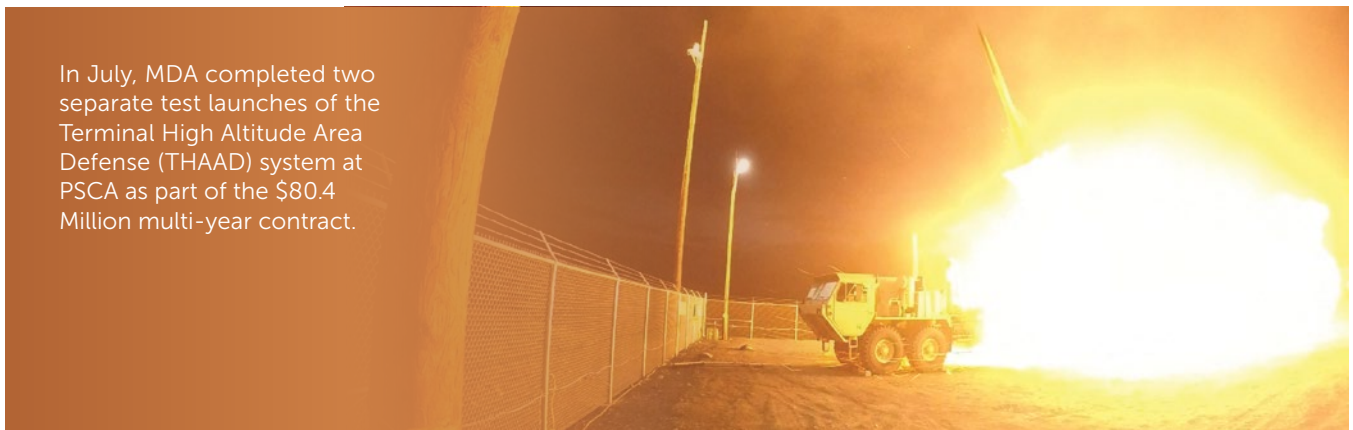
# Year in Review

Following a number of challenging years, to include the two year reconstruction program of our launch facilities damaged in the 2014 launch vehicle failure, 2017 marked the culmination of the hard work by our TEAM to secure long term commercial and government contracts, creating a strong financial base for Alaska Aerospace.

Throughout the year, Alaska Aerospace strived to exceed our customer's expectations in service delivery across our core activities. We invested in infrastructure, facilities, and people. We continued our focus on reducing costs for our current customers, while at the same time expanding our capabilities to attract the emerging "New Space" commercial market. This resulted in expedient growth in launch activities and future launch service contracts.

## MISSILE DEFENSE AGENCY (MDA)

In July, MDA completed two separate test launches of the Terminal High Altitude Area Defense (THAAD) system at PSCA as part of the \$80.4 Million multi-year contract.



A Terminal High Altitude Area Defense (THAAD) interceptor is launched from the Pacific Spaceport Complex Alaska in Kodiak, Alaska, during Flight Experiment THAAD (FET)-01 on July 30, 2017 (EDT).

## ROCKET LAB USA

2017 marked the first time that Alaska Aerospace conducted operations outside the United States. In late 2016 we deployed our Range Safety and Telemetry System (RSTS) to New Zealand to support test and evaluation launches of the Rocket Lab USA Electron rocket from their Launch Complex One, Mahia Peninsula, New Zealand. Rocket Lab is a US aerospace corporation with a New Zealand subsidiary. Rocket Lab's mission is to develop light-weight, cost-effective commercial rocket launch services.

On May 25, 2017, Rocket Lab USA successfully launched their first Electron rocket. Designed to test the capabilities of the rocket, vehicle systems, and the Rutherford engines, the first launch, named "IT'S A TEST," lifted off at 4:00 PM and was tracked by Alaska Aerospace personnel in the RSTS Mobile Operations Center (MOC). This was the first international launch operation supported by Alaska Aerospace, expanding our capabilities as a company into the international commercial launch market.

Rocket Lab USA and Alaska Aerospace formed a solid business relationship in 2017 which resulted in an agreement to continue operating our RSTS equipment at Launch

Complex One through 2018. Part of the agreement includes training Rocket Lab personnel on the operations of the equipment to reduce the deployment requirement for Alaska Aerospace personnel, as well as to provide a larger pool of trained RSTS personnel for use in future years.



Alaska Aerospace Range Safety and Telemetry System at Launch Complex One, New Zealand

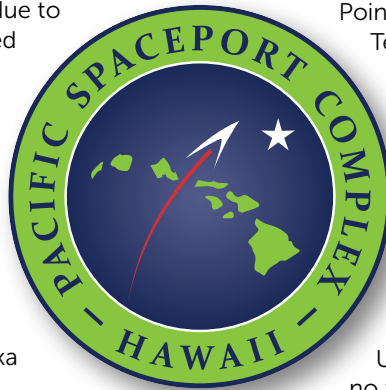
## Year in Review

### EQUATORIAL LAUNCH SITE DEVELOPMENT

With more than half the small satellite demand requiring equatorial launch capability, the Board directed staff to evaluate establishing an equatorial launch site capable of supporting both solid and liquid fueled small and ultra-small sized launch vehicles. Since launches from Alaska cannot launch into equatorial orbit due to the high latitude of PSCA, the Board directed that Alaska Aerospace evaluate other locations that are within the Pacific region; not co-located with a Federal range; and located within US territory. Through the evaluation process two primary locations were identified that met these equatorial launch requirements; East Hawaii and Saipan.

#### East Hawaii

In support of the East Hawaii location, Alaska Aerospace is teamed with the University of Hawaii, Spaceflight Laboratory; the Hawaii Island Economic Development Board, and the Pacific International Space Center for Exploration Systems (PISCES) in evaluating the potential for development of a launch facility that could support both liquid and solid fuel small and ultra-small commercial launch vehicles. The Hawaii Legislature appropriated \$250,000 in SFY 2018 to support the evaluation of a potential location in East Hawaii for a small lift facility. By mid-year, an environmental firm was selected and the formal Federal Aviation Administration (FAA) Environmental Assessment (EA) process was initiated. Alaska Aerospace is supporting the project by providing engineering design and technical support in facility layout for the EA. Alaska Aerospace will also be responsible for applying to the FAA for the commercial spaceport site operator license under FAA Application Procedures described in 14 CFR Part 420, should the environmental process advance successfully.



#### Saipan

Concurrent with the East Hawaii site EA, Alaska Aerospace is pursuing a potential launch site in the Commonwealth of the Northern Mariana Islands (CNMI). The preferred site is located on the northeast end of Saipan at Marpi Point. In 2016 Alaska Aerospace secured a Temporary Land Use Permit, allowing us to conduct initial evaluations of the site.

A survey of the preferred location was conducted and an initial environmental review was completed in 2017. It was found that the preferred site has not been cleaned up following World War II, where the site was actively used by both Japanese and American forces. The site is listed on the federal government Formerly Used Defense Site (FUDS) clean-up list, but no funding has been allocated to clean-up at this time. Alaska Aerospace is working with the CNMI Department of Public Lands (DPL) and Department of Environmental Quality (DEQ) to establish a clean-up priority, funding, and timing for the work to be completed prior to advancing to the FAA EA process.

Due to the high probability that the Marpi Point site will not be available in the timeframe necessary to meet the commercial market demand for equatorial launch, Alaska Aerospace has identified two alternative sites on Saipan that may be able to accommodate the launch requirements for commercial operations to achieve equatorial orbit. As the year came to an end, Alaska Aerospace had commissioned an environmental firm to conduct an environmental review, as well as working to identify another potential site that could be feasible for equatorial launch from Saipan or Tinian should the other alternatives prove unworkable.

Since launches from Alaska cannot launch into equatorial orbit due to the high latitude of PSCA, the Board directed that Alaska Aerospace evaluate other locations that are within the Pacific region; not co-located with a Federal range; and located within US territory.



## Year in Review

### COMMERCIAL “NEW SPACE” LAUNCH INITIATIVES

History has taught us that expanding our services beyond US government contracts for launches from PSCA can provide a more diversified and stable revenue stream. Therefore, Alaska Aerospace concentrated 2017 business development efforts towards the “New Space” launch vehicle market.

Culminating a very strong marketing effort for commercial launches, Alaska Aerospace signed a multi-launch contract with a new California launch vehicle company to support launches of their launch vehicle from PSCA in 2018. Using their extensive background of aerospace technology development of small scale launch vehicle components, this company has manufactured a new small lift, liquid fueled launch vehicle. It is projected that they will continue conducting launches from PSCA in future years, making PSCA their primary polar orbit launch site.



In 2015, Garvey Space conducted a pathfinder operation at PSCA to evaluate using our range for future commercial launch operations. While Garvey Space has been acquired by Vector, their

interest on launching from PSCA remains strong. This year we signed a contract with Vector Space Systems (now Vector) to conduct mission planning for commercial launches of their Vector R (Rapide) launch vehicle starting in 2018. As part of that contract, we initiated the planning process required to accommodate their small, liquid fueled launch vehicle.

Overall, we expect strong market demand by small and ultra-small launch vehicle operators for use of PSCA to meet both commercial and government small payload needs through 2018 and beyond. The achievements of 2017 created a solid foundation from which small and ultra-small launch vehicle operators can expand operations in Alaska as the market matures.

As the premier commercial spaceport in the United States for polar launch, Alaska Aerospace has also signed Non-Disclosure Agreements with a number of other commercial launch operators interested in establishing operations at PSCA. Based on the projected demand for commercial launches from PSCA, Alaska Aerospace is preparing to accommodate up to nine launches in 2018.

### SPACEX TRACKING

Over a number of years, Alaska Aerospace has supported SpaceX, using our existing telemetry antennas to track the SpaceX Dragon capsule. Our location at Narrow Cape provides SpaceX with an essential site for tracking the Dragon, so this year we negotiated with SpaceX for them to lease PSCA land and install their own tracking antenna system at PSCA. By doing this, SpaceX now has a permanent capability at our site, providing them tracking assurance, which allows us to have our telemetry antennas always available for use for commercial and government launches. With the increased activities of Alaska Aerospace, this new arrangement with SpaceX provides a win-win scenario for both companies.

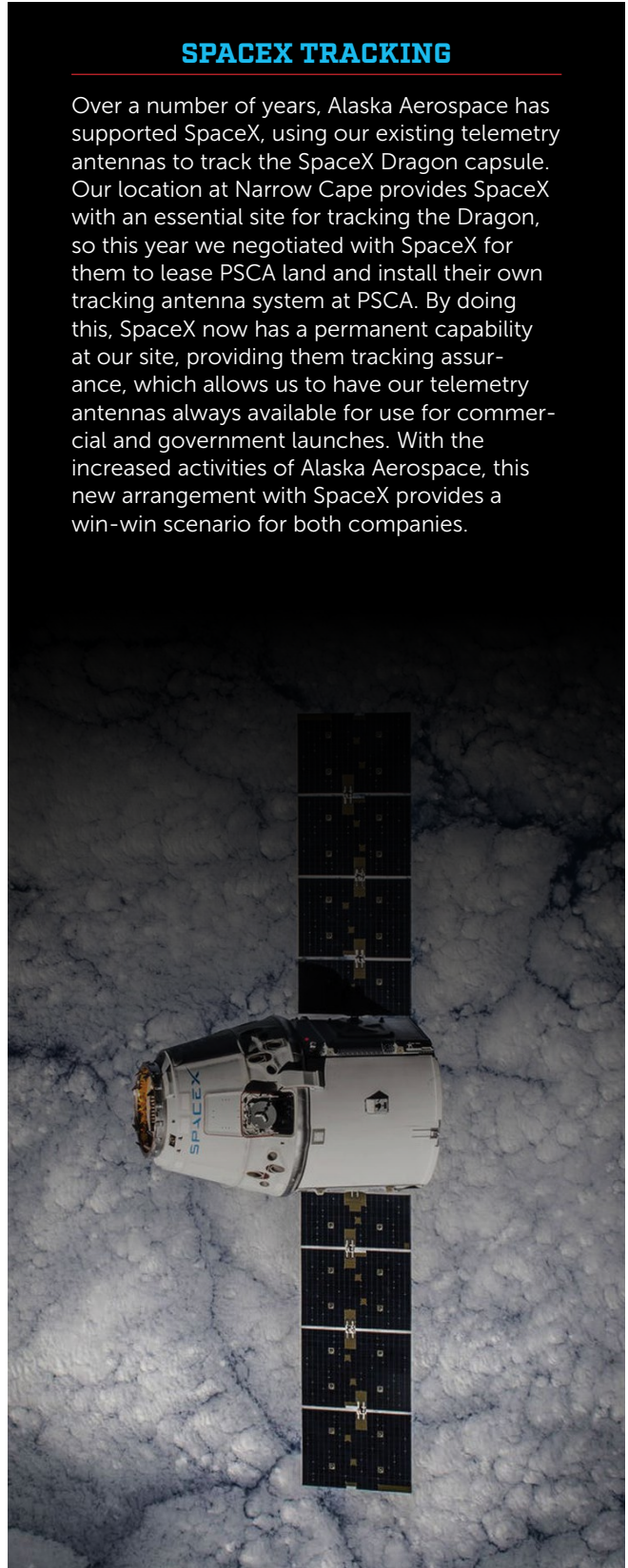


Photo courtesy of SpaceX

## Year in Review

### FACILITY UPGRADES AND IMPROVEMENTS

Continuing to upgrade facilities and add capacity to our capabilities is key to our long term strategy to remain the nations most modern and cost effective launch complex. During the year we were able to finish the remaining projects on damaged facilities from the 2014 launch vehicle failure, as well as invest in a number of upgrades that enhance our ability to support expanded government missions and serve a greater number of commercial customers.

With the MDA contract, our team initiated a number of site improvements necessary to accommodate their mission objectives. It is this lean forward attitude of Alaska Aerospace people that has established a favorable reputation of our company as a launch location that meets customers' requirements in minimal time and at affordable costs.

One of the most challenging requirements was the need to provide a Life Support Area (LSA) at PSCA to accommodate soldiers for the 2017 missions. Alaska Aerospace sponsored a Request for Proposal for an LSA and PRL Logistics (an Alaskan company) was the successful proposer to construct a semi-soft-sided encampment which included sleeping quarters, food service facilities, a recreation center, a laundry facility, and a wastewater containment area. The project was completed on time and on budget, and provided MDA with excellent facilities in 2017. This temporary facility was removed after the mission operations in accordance with our contract.

Since Alaska Aerospace did not develop the Launch Pad 3 medium-lift facilities at PSCA, land was available to be converted for other operational uses. In minimal time, Alaska Aerospace constructed a road into the area, three gravel pads, and all necessary infrastructure to support launch operations. Alaska Aerospace also constructed a large gravel pad, to include utility connections, for installation of support systems.

It is this lean forward attitude of Alaska Aerospace people that has established a favorable reputation of our company as a launch location that meets customers' requirements in minimal time and at affordable costs.

### SPACE CRAFT ASSEMBLY AND TRANSFER (SCAT) RECONSTRUCTION

While the reconstruction project was mostly completed in 2016, Alaska Aerospace management deferred completing the SCAT facility repairs until resolution of insurance repayments. Alaska Aerospace and the State of Alaska reached a final agreement on full reimbursement from the insurance companies in March 2017, with final payments received by Alaska Aerospace in May 2017. Due to missions in the June to August timeframe, completion of the SCAT reconstruction was delayed until December. Pursuing an aggressive timeline, the SCAT was completed in early November, in time for our first commercial customer to use the facility for their launch in 2018.



New telemetry antenna installation at PSCA.



## Year in Review

### 2017 FEDERAL APPROPRIATION

Continuing our focus to provide the United States government with the highest standard capabilities in the industry, Alaska Aerospace received a federal appropriation within the FY 2017 Department of Defense budget for improvements and upgrades to PSCA that support the national security space strategy. The funds totaled \$5.0 Million and were used for four specific projects.

#### Liquid Fueling Capability

PSCA has historically launched only solid-fuel rockets. With the emergence of the new small commercial liquid fueled rockets, PSCA requires modifications and upgrades in order to support launching liquid fueled rockets. The United States government is considering using some of these new small commercial rockets for launching government payloads in the future. Therefore, the highest priority for use of the 2017 federal appropriation was to provide economical and sustainable liquid fueling capabilities at PSCA. Upgrades and improvements are being made to the Launch Pad 1 and Launch Pad 2 infrastructure that allows PSCA to accommodate these new liquid fueled rockets for launches from Alaska.

#### Upgrade Communications and Processing Capabilities and Security of the Launch Processing Systems

This improvement program allows for upgrading Launch Processing Systems by modernizing the Ed Allen Launch Operations Control Center (LOCC) to include built-in upgradable consoles using Commercial off the Shelf (COTS) systems and links for possible remoting LOCC capabilities and/or mirroring data/displays at off-site locations.

#### Range Safety and Telemetry Systems (RSTS) Upgrades

This project encompasses limited hardware and software improvements necessary to continue serving the flight safety command destruct requirements until Autonomous Flight Termination System (AFTS) is fully integrated into the Federal government launch program. This work is a continuation of the work started under a 2015 Federal Appropriation for the RSTS.

#### Upgrade and Modernize Network and Computing System for Improved Cybersecurity

Cybersecurity of electronic systems remains an evolving and changeable target as our adversaries adjust to the changing environment. Under this project, Alaska Aerospace is making on-going communications and security system upgrades based on identified threats outlined in our 2015 Threat Vulnerability Study.



Deric Schmidt, Maintenance Technician

## Year in Review

### TELEMETRY TRACKING ANTENNA INSTALLATION

With the increased number of operations from PSCA, coupled by the need to keep our deployed RSTS in New Zealand for 2017, a decision was made to install two new telemetry tracking antennas at PSCA. Our commitment to customers to provide optimum capabilities was the primary factor in selecting the Telemetry and Communications Inc (TCS) Model 5000 antenna system. This system is state-of-the-industry and provides full-sky auto-tracking feed that receives in both the L and S Bands, with the capability for C-Band tracking.

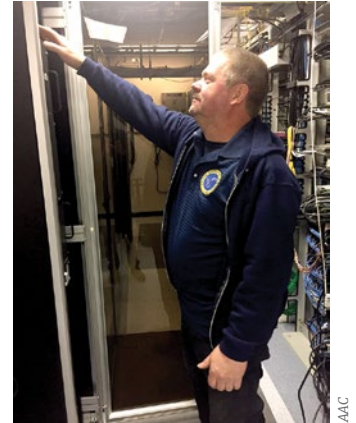
In a change from past operations, where our RSTS was mobile and exposed to the environment, we elected to permanently mount the new antennas and install radome covers. Radomes improve system availability as it protects the antennas from the environment and can improve antenna performance since high winds and temperature variations can distort the shape and pointing direction of the reflector. Due to the harsh weather conditions occasionally experienced at PSCA, the radomes will also provide a benign environment for personnel when working on the antenna system. It is expected the permanent installation of the telemetry antennas and radomes will reduce life cycle costs associated with operations and maintenance of the system. Two antennas and radomes were installed at a total cost of just under \$2.0 Million.

Further complimenting this upgrade, our team converted one RSTS Mobile Operations Center (MOC) unit at PSCA to a fixed unit by removing the RSTS telemetry tracking and flights safety components for the mobile vans and constructing a permanent, fixed operations center in the Mission Support Facility at PSCA. Ever conscious of the costs of facility improvements, this project was self-help, completed at a very low labor investment by our PSCA employees over the course of the year.

In a change from past operations, where our RSTS was mobile and exposed to the environment, we elected to permanently mount the new antennas and install radome covers.

### ENERGY SAVINGS AND EFFICIENCIES

PSCA encompasses a sprawling campus covering over 3,700 acres, with a variety of different and highly technical facilities across the property which are often minimally staffed and remotely monitored. Reconstruction of the damaged facilities resulted in a number of different monitoring systems being used at PSCA. Operating and managing these diverse systems is costly and inefficient, both in staff utilization, as well as in cost of parts, repair, and replacement of older units. Alaska Aerospace conducted a facilities analysis and determined that providing a single, unified systems monitoring and support contract for all on-site systems would provide tangible efficiencies in both financial savings and less time requirements for PSCA staff to respond to systems outages and malfunctions.



### STATE RELEASE OF \$2.2 MILLION

On December 26, 2014, Governor Walker issued Administrative Order 271 (AO 271) directing state agencies to halt, to the maximum extent possible, discretionary expenditures for six state projects. AO 271 identified the Kodiak Launch Complex medium-lift capital project as one of the six projects. Alaska Aerospace complied with AO 271 and in January 2015 voluntarily returned \$22.0 Million of the FY 2012 capital appropriation back to the state for re-appropriation.

This year, Alaska Aerospace requested release from AO 271 to allow limited investments at PSCA using the remaining funds for infrastructure that would support medium-lift capability at PSCA should Alaska Aerospace secure a medium-lift contract in the future, but could also be used by existing customers. On April 10, 2017, Governor Walker granted Alaska Aerospace full release from AO 271, allowing Alaska Aerospace to acquire the new telemetry antennas designed to serve the medium-lift designated area, which can concurrently be used by MDA under our existing multi-year contract, and other commercial customers.



# Company Restructuring

To address the rapidly changing aerospace business environment and position Alaska Aerospace to become more competitive in the global space launch industry, 2017 saw Alaska Aerospace take some significant steps to streamline our structure and reduce costs. As the small and ultra-small satellite market expands in imaging, communications, and navigation, the demand for affordable and reliable launch services is expected to grow.

## Aurora Launch Services LLC

As a part of our restructuring, the Board of Directors authorized the establishment of a wholly owned subsidiary, Aurora Launch Services, to conduct launch operations. The purpose of Aurora Launch Services is to provide low cost, highly reliable launch services on a contract basis to both government and commercial space launch customers worldwide. At the November board meeting a resolution

was passed establishing the Articles of Organization and Operating Agreement for Aurora Launch Services, LLC. With this action Aurora Launch Services became operational in 2017 and all launch operations responsibilities for all launch contracts at PSCA, are being transferred to this new subsidiary. Aurora Launch Services is headquartered in Anchorage, Alaska; co-located with Alaska Aerospace.

As the small and ultra-small satellite market expands in imaging, communications, and navigation, the demand for affordable and reliable launch services is expected to grow.



# Future Operations

## MISSILE DEFENSE AGENCY PSCA OPERATIONS

At Alaska Aerospace, we are committed to supporting our nation's national security requirements through providing affordable, reliable, superior service to our government customers. We believe the United States requires strong defensive systems to deter our adversaries and ensure peaceful co-existence across the Pacific Region.

We are proud of our past support to MDA in providing target vehicle launches during the development and testing of the Ground-based Midcourse Defense (GMD) program. And we are extremely proud to be working with them again, supporting a variety of missions from PSCA. We view our relationship with MDA as a long term engagement and are focused on exceeding expectations, thereby creating greater opportunities to support additional missions from Alaska while saving our nation value defense dollars.

At year's end, Alaska Aerospace and MDA had developed a five year plan that includes the potential for additional flight tests from PSCA, along with additional defense system tests through 2022.

## ROCKET LAB USA

Following the "IT'S A TEST" initial launch of the Electron rocket on May 25th, Alaska Aerospace made a number of modifications to our Range Safety and Telemetry Systems (RSTS) and its ground support equipment designed to enhance our capabilities for supporting the next series of launches. Subsequent to these changes, Alaska Aerospace successfully supported the second launch window of the Electron rocket from Launch Complex One between 8 and 15 December. With our 2017 operations from New Zealand, Alaska Aerospace validated our capability to deploy our system internationally and to successfully support the emerging small and ultra-small launch industry with reliable flight termination and telemetry services. We concluded the year by signing an agreement to continue supporting Rocket Lab launches from New Zealand through 2018.

We believe the United States requires strong defensive systems to deter our adversaries and ensure peaceful co-existence across the Pacific Region.

## "NEW SPACE LAUNCH COMPANY"

A new launch vehicle provider, which has developed a small liquid fueled rocket motor and conducted multiple hot-fire tests of the new motor, signed a contract in 2017 for launches, planned to begin in 2018, from PSCA. Demonstrating our teams' ability to quickly adapt to varied mission requirements, working with the team, AAC initiated reconfiguring Launch Pad 2 to provide the liquid infrastructure. This cooperative effort between our team and our customer is a hallmark in our efforts to attract a larger segment of the commercial launch market. We project sustained launches from PSCA in 2018 and beyond by this customer, cementing a long term commitment to operate commercial launches from Alaska.

## VECTOR

After first conducting a pathfinder at PSCA in 2015 for the new Vector rocket, Vector and Alaska Aerospace forged a close relationship in 2017 focused on initiating launches from PSCA in 2018. Vector conducted a pathfinder operation at their Tucson Spaceport in September 2016 and successfully launched a full-scale model of its Vector-R rocket in May 2017 from Mojave, California. In August 2017, Vector successfully conducted a second sub-orbital test launch of the Vector-R, this time from Spaceport Camden in Georgia. Vector subsequently signed an agreement with Virginia Space to conduct three launches from their Mid Atlantic Regional Spaceport (MARS) in 2018. Virginia and Alaska Aerospace have a Memorandum of Understanding to collaborate whenever feasible to enhance commercial space launch operations that require both equatorial and polar orbit access. As the year came to an end, Alaska Aerospace was working with Virginia Space to develop the most affordable and streamlined launch services for Vector in 2018, including the potential for conducting multiple commercial launches from PSCA.

## OTHER POTENTIAL CUSTOMERS

As Alaska Aerospace advanced infrastructure improvements at PSCA and made changes favorable to the new emerging commercial launch vehicle market, we received a number of additional inquiries pertaining to possible launches from PSCA in future years. Our business development program has never been busier. While we fully recognize that we may not be able to attract every new entrant to launch from PSCA, our expanded capabilities through Aurora Launch Services and our demonstrated ability to deploy equipment and personnel to other sites globally position Alaska Aerospace favorably to experience increased commercial business in 2018 and beyond.





## Our Outlook

The high level of commercial small launch vehicle activity in 2017 marked a turning point for Alaska Aerospace. No longer solely dependent on government launches from PSCA, Alaska Aerospace has established a solid cornerstone in the commercial launch business with a variety of operators focused on affordable and reliable launch services. We will be advancing this business model in 2018 with more infrastructure investments designed to meet the growing demand for small commercial launch services.

Nathan Fitzgerald, Engineer

# Our Governance and Management Teams

*"No Team works without Teamwork." ~ Dwyane Wade*

Alaska Aerospace is fortunate to have a strong Board of Directors dedicated to the long term success of the company and ensuring Alaska Aerospace provides a tangible benefit back to the citizens of Alaska. Over the past year the Board pursued an aggressive pace towards transitioning Alaska Aerospace into a more private sector focused company that diversified our customer base to include both government and commercial customers.

It is noteworthy to acknowledge a number of individuals, both employees and contractors, who exceeded mission requirements and provided exemplary service to Alaska Aerospace in 2017. Examples include:

- Todd Leitheiser and Rich McKinney who deployed numerous times to New Zealand to support Rocket Lab USA launches of the Electron rocket from Launch Complex One.
- Patti Juhlin, who had retired from Alaska Aerospace but unselfishly agreed to return as a contractor to manage the Alaska Aerospace logistics needs for the MDA operations at PSCA.

We want to thank Mark Greby, John Cramer, and Barry King for their strong leadership in managing the many varied tasks and assignments required to make our 2017 launch operations successful, while simultaneously working on the restructuring of Alaska Aerospace to a more commercial organization. Their efforts have resulted

in significant improvements and cost saving initiatives that place Alaska Aerospace as one of the most responsive and affordable launch options available worldwide.

With the completion of PSCA reconstruction in 2017, our project manager for reconstruction, Bruce Walter, agreed to become our full-time Director of Maintenance and Operations (DMO). Bruce has an extensive career in Alaska in facility operations and construction management. With the corporate direction of separating operations from facilities, Bruce accepted the DMO role and will be a critical leader in our eventual establishment of a facilities management subsidiary.

We want to thank Janet Julsen for her many years of service in our Accounting office, as she retired after 12 years with Alaska Aerospace in April. It was with mixed emotions that we accepted Mark Greby's retirement from Alaska Aerospace this summer, as we lost one of the aerospace industries' most experienced engineers. But we are pleased that Mark is continuing with Alaska Aerospace on a contractual part-time basis, supporting our efforts to serve the commercial small and ultra-small launch vehicle market, as well as continuing to manage our federal appropriations process and Federal Aviation Administration (FAA) licensing and certification processes.

After three years without a Chief Financial Officer (CFO) we are pleased that Amy Hillenbrand joined Alaska Aerospace this year as our Executive Finance Manager. Amy holds a Certified Public Account (CPA) and brings a wealth of financial experience in both government and private sector organizations.



Rich McKinney and Todd Leitheiser at New Zealand Launch Complex One.



Amy Hillenbrand, Executive Finance Manager.

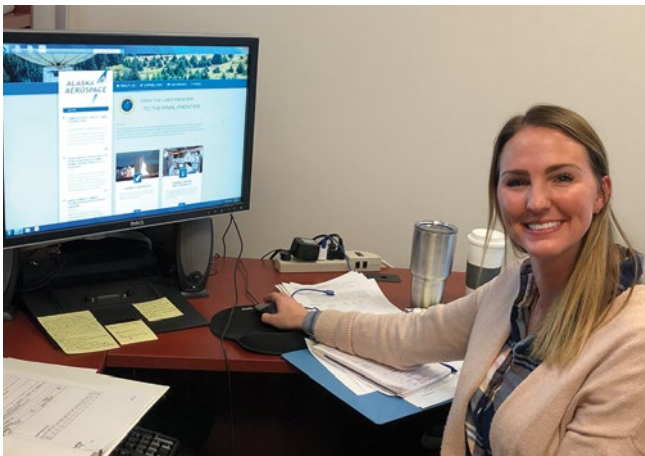


As our relationship with MDA expanded, we hired a new contracts specialist who has significant experience formerly working in the MDA contracts office in Huntsville. Maggie Fletcher moved from Huntsville to Anchorage in September and has provided Alaska Aerospace with enhanced capabilities to handle MDA contract proposals, negotiations, mission execution, and task order close-outs. Her knowledge of the government contracting system has proven invaluable in rapidly resolving issues and demonstrating our commitment to customer service excellence.

These changes to the Alaska Aerospace TEAM strengthen the staff in being able to meet our contract commitments and excel in customer satisfaction. In Anchorage, Judy Godin, Laura Davis, Barbara Bruggenkamp, Jessica Soto, Art Isham, and Doug Hunter have done a spectacular job at ensuring Alaska Aerospace weathered the past difficult years and ensured that the company was positioned well for the new business we are now experiencing.

Alaska Aerospace has some of the highest quality professionals in the aerospace business supporting Bruce Walter at PSCA. In addition to supporting our overseas operations for Rocket Lab, Todd Leitheiser and Rich McKinney are key elements in support of the RSTS at PSCA. Mark Irwin leads our Information Systems section, responsible for the communications and data systems at PSCA. Joe Francisco, as our Corporate Security Manager, has done an exceptional job at ensuring Alaska Aerospace is compliant with our customer's security requirements and that our facilities continue to meet all federal government security conditions.

Supporting the PSCA team; Nathan Fitzgerald, Deric Schmidt, Paul Friel, Keith Morin, Wyatt Rehder, and Jesse Ford-Roberts made tremendous accomplishments as we supported operational missions and concurrently completed facility infrastructure reconstruction and upgrade improvements to ensure PSCA remains the premiere commercial spaceport in America.



Maggie Fletcher, Contracts Specialist.

Assisting Barry King in Huntsville, Doug Sampson and Todd Steigerwald have done an exceptional job at working to bring MDA business back to Alaska, while concurrently providing valuable support in the transformation efforts of Alaska Aerospace to adopt more commercial business practices. Finally, while John Zbitnoff has retired from full time employment with Alaska Aerospace, his commitment to making sure PSCA continues providing excellence in service has meant that we have been able to retain his service on a part-time contractual basis.

The strong TEAM approach AAC uses has created a culture where employees and contractors are empowered to make decisions that support customer requirements without a lot of bureaucratic oversight. This was clearly beneficial as we performed contractual commitments with a much leaner staff than has been the historical average for Alaska Aerospace. This lean and responsive approach bodes well for creating an atmosphere of problem solving and collaboration between Alaska Aerospace and MDA, which streamlined our reaction times and provided greater flexibility in mission execution. Recognizing the operational and fiscal challenges associated with achieving mission objectives and controlling budgets, we will continue to decentralize decision-making authority to the appropriate technical level as we further rationalize our processes favorable to low cost operations for both government and commercial customers



Bruce Walter, Director of PSCA Maintenance and Operations.

# External Engagement

Throughout the year, Alaska Aerospace participated in a number of symposiums and trade shows to highlight our capabilities and introduce our facilities to new companies. While the electronic age of computers, emails, and text messaging has made communications much more effective, business development still requires face to face connections. We have learned that the most effective way to engage with the aerospace community is to participate in a few targeted national conferences and symposiums that concurrently conduct aerospace trade shows.

## FAA Commercial Space Symposium

Alaska Aerospace attended the 20th Annual Commercial Space Transportation Conference, sponsored by the Federal Aviation Administration and held in Washington DC on February 7th and 8th. The event provides the commercial space industry the opportunity to network and hear from speakers addressing the industry's most pressing issues. Alaska Aerospace President and CEO Craig E. Campbell participated on the Spaceports Panel, where he cautioned the group that, with the plethora of spaceports operating internationally, investing in a saturated market to develop more spaceports could result in capital investments being spread so thin that it becomes challenging for commercial spaceports to profitably operate without government subsidies. That, of course, would be counterproductive to generating a competitive commercial spaceport market in the United States.

While the electronic age of computers, emails, and text messaging has made communications much more effective, business development still requires face to face connections.



Craig Campbell and Mark Greby at Space Symposium 2017.

## The 33rd Space Symposium

The premier space gathering in the United States is the annual Space Symposium, held in Colorado Springs and conducted by the non-profit National Space Foundation. The Space Symposium has become widely known as the most important U.S. space policy and program forum and as the "must attend" opportunity for information on and interaction among all sectors of space. This year's event was held April 3-6 at the Broadmoor Resort and was attended by an estimated 10,000 participants and exhibitors. This was the fifth year that Alaska Aerospace has purchased booth space at the symposium.

Co-located with the Virginia Space, Alaska Aerospace experienced a very active flow of representatives from companies and government agencies. During the symposium, leadership from Alaska Aerospace also held separate meetings with current and potential customers to discuss opportunities and capabilities. Last year's participation in the Space Symposium resulted in a number of new commercial launch vehicle companies eventually visiting PSCA and ultimately resulted in new commercial contracts.

This year, Alaska Aerospace was able to highlight completion of the reconstruction project at PSCA and participate in extensive networking with suppliers and service companies. As the aerospace community has become more aware that PSCA is once again operational and that Alaska Aerospace is offering commercial services beyond that of Alaska, we experienced a number of inquiries from foreign companies and government agency representatives interested in ways Alaska Aerospace may be able to support foreign spaceport development and the establishment of collaboration and cooperation in future operations.

## Japan Space Industry Symposium 2017

Also in April 2017, Alaska Aerospace was honored to be invited to participate on a panel discussion concerning commercial spaceport development and operations at the Japan symposium titled "Asia Spaceport Complex: The Road Ahead." Sponsored by the Japan Space Systems, Alaska Aerospace presented a short overview of PSCA, followed by a discussion on management challenges, launch procedures and safety considerations, and the vision of the future for Alaska Aerospace.

The invitation to participate followed a visit to PSCA in June 2016 by a Japanese delegation led by the Honorable Hiroshi Imazu, an elected member of the Japan House of Representatives and Chairman, Space Policy Research Council (LDP). During that trip the delegation received an extensive briefing on Alaska Aerospace operations, toured PSCA, and explored ideas concerning future plans for expanding into the small and ultra-small commercial launch market. As Alaska Aerospace looks to broaden our activities and commercialize services provided at PSCA, the developing Japanese commercial launch market has been a high priority.



As a result of this visit, Alaska Aerospace has expanded our focus on the Japanese aerospace industry to include potentially supporting collaborative development of a new spaceport in Japan that supports Alaska Aerospace focus on international development.

The event was attended by over 2,000 people representing both government and commercial aerospace interests in Japan. Sharing the panel with Alaska Aerospace was Dr. Scott Pace, George Washington University Elliot School of International Affairs (who in August was named as the new US National Space Council Executive Director), and Mr. Peter Marquez, Founder and CEO of Planetary Resources.

Following the symposium, Alaska Aerospace participated in a site visit to the proposed Taiki Space Center, located in northern Japan on Hokkaido Island. During the trip, a visit to a new small commercial launch vehicle company, Interstellar Technologies, was conducted. As a result of this visit, Alaska Aerospace has expanded our focus on the Japanese aerospace industry to include potentially supporting collaborative development of a new spaceport in Japan that supports Alaska Aerospace focus on international development.

### Space and Missile Defense Symposium

On the heels of successful launches from PSCA, Alaska Aerospace again participated in the Space and Missile Defense (SMD) Symposium held in Huntsville, Alabama August 8th to the 10th. The SMD Symposium is the leading educational, professional development and networking event in the space and missile defense community. This was the fourth year that Alaska Aerospace sponsored a booth in the main exhibition hall to highlight our work in support of the Missile Defense Agency's and Space and Missile Defense Commands national defense programs. This year was the most active we have experienced at the symposium, as numerous attendees were interested in discussing our enhanced capabilities and our many company changes which make Alaska Aerospace more competitive and attractive for government programs.



Barry King at Space and Missile Defense Symposium 2017.



### World Trade Center Anchorage

It is important to our company that we support state efforts to expand business in the state, for both domestic and international markets. With our evolving international pursuits, Alaska Aerospace rejoined the World Trade Center Anchorage (WTCA), after two years absence. The WTCA provides international trade and business services to members and community partners across the state. The mission of WTC Anchorage is to assist Alaskans to successfully compete for trade and investment in the global market place. For Alaska Aerospace, the WTCA provides a resource to research and identify trade opportunities. The WTCA also can support customized trade information and assistance when engaged in foreign business development, as well as providing a capability to strengthen our relationship with other Alaskan firms operating internationally.

Alaska Aerospace was the featured presentation at the WTCA "Meet and Brief" luncheon on July 26th, where Alaska Aerospace gave a broad overview of current and future operations, as well as to highlight our international pursuits for expanding space launch capabilities in the Pacific Region.

### Juneau Chamber of Commerce Presentation

While Alaska Aerospace no longer receives state sustainment funding, continuing our effort at informing Alaskans of the valuable asset maintained at PSCA and the economic contribution the company is making in the state remains a high priority of senior management. Therefore, in October, Alaska Aerospace was the featured speaker at the Juneau Chamber of Commerce luncheon. President and CEO, Craig E. Campbell provided the audience with a review of the past few years and highlighting the projected operations in 2018 and beyond.

### Anchorage Hillside Rotary Presentation

In September, Alaska Aerospace had the privilege to provide an overview presentation to the Anchorage Hillside Rotary Club. The presentation focused on informing the audience, not only about the history and operations at PSCA, but also to offer a perspective on the economic value Alaska Aerospace contributes to the state. As Alaska faces a continued uncertain economic future due to multi-year depressed oil prices, providing a positive message of diversifying our state's economy, specifically in the aerospace sector, was warmly received.

### Kodiak Community Engagement

Alaska Aerospace is proud of our strong relationship with the community of Kodiak. Over the years, senior management officials have provided public presentations on our facilities and operations to the Kodiak Island Borough Assembly. We have made presentations before the Kodiak Chamber of Commerce; hosted evening events with the Kodiak Chamber; briefed the Kodiak Rotary Club on activities; sponsored tours of PSCA to local residents; and presented programs in the schools to support the Science, Technology, Engineering, and Mathematics (STEM) curriculum.

During 2017, we continued our commitment to transparency through our community engagement program by conducting a number of interviews with the Kodiak Daily Mirror and KMXT radio to keep the community informed on activities at PSCA. On June 14th, we held a Town Hall Meeting to provide the community with an update on our upcoming PSCA summer launch activities. We want to thank Lindsay Knight, Alaska Aerospace Board of Directors Vice Chair, for being the event Master of Ceremony and to John Cramer and Barry King for the presentation and answering questions from the public during the meeting.

Alaska Aerospace maintains a commitment to community engagement as we seek to provide greater employment and economic benefits to the Kodiak community by increasing our operations at PSCA. In doing so, we remain sensitive to our neighbors' desires to keep the beautiful Narrow Cape area, especially access to Fossil Beach, open to the public to the maximum extent possible. We appreciate the community's understanding and support for the occasional road and area closures required to protect both people and property from potential harm during launch operations.

In October, Alaska Aerospace provided the Kodiak Island Borough Assembly an annual update of activities at PSCA, to include an outlook of the coming year. Assembly members expressed appreciation for the economic contribution Alaska Aerospace is making to the Kodiak community and our awareness towards environmental concerns of the community.

### Alaska Aerospace in the Media

With the increased launch activities at PSCA and expanded capabilities offered by Alaska Aerospace to the commercial market, 2017 was a very active year for media coverage of the company. In June, the Associated Press published a positive story covering the challenges faced over the past few years and highlighting the tremendous success in rebuilding and diversifying our customer base.

This was followed by an Alaska Journal of Commerce article in August which focused on the role Alaska Aerospace and PSCA is playing in support of our nation's defense. It also emphasized our transformation towards a more commercially structured company with non-government customers.

Focusing on the local Kodiak community, Alaska Aerospace was featured in a number of news articles published in the Kodiak Daily Mirror and conducted interviews with KMXT radio throughout the year. These efforts contributed to our intention of keeping the local community informed about our activities at PSCA, but also to inform the public on the many economic benefits provided to Kodiak by having a successful launch complex located on Kodiak Island.

In September CNBC published an article covering the evolutionary changes in commercial space operations and how FAA licensed spaceports were changing the space launch landscape in the United States. PSCA was premiered in the article as an example of how commercial spaceports are driving the development of commercial space sector nationwide. This national recognition as one of the leading commercial spaceports in America bodes well for the changes Alaska Aerospace has made these past couple of years to focus on commercial operations and our success in moving away from state and federal sustainment subsidies.

There also were a large number of articles on government and commercial space operations published by national outlets that mentioned Alaska Aerospace and PSCA in a positive light throughout the year. These articles represented a significant shift in the perception of Alaska Aerospace by informing the public of the many successes Alaska Aerospace has accomplished this past year, as well as to counter some of the negative comments generated by critics of PSCA.





# Financial Performance

We continued our efforts to lower costs by further reducing the size of the full-time Alaska Aerospace staff and increasingly outsourcing for specialized personnel that meet our customer's operational requirements. We understand the budgetary pressures facing both our government and commercial customers; therefore, throughout the year we used internal management assessments to evaluate ways we could deliver the highest quality services at the lowest cost.

We achieved the lowest average per month operations and sustainment costs the company has experienced in over a decade, providing us a distinct marketing advantage over our competitors. This saving was directly applied back to our customers by way of creating more competitive operational fees designed to drive increased market demand for using PSCA in future years.

The move towards a Public-Private Partnership (P3) corporate structure, coupled with our establishment of Aurora Launch Services and streamlining our workforce, has allowed us to be an industry leader in affordable launch costs and positioned us well for future business.

Following our past ability to secure two federal appropriations for infrastructure improvements at PSCA that support our national security space launch requirements, we are requesting another \$5.0 Million be included in the Department of Defense budget in FY19. Using these funds specifically to make facility upgrades and to increase our capabilities provides the country with a low cost capability to expand national defense test programs in Alaska.

As we reported in last year's annual report, 2016 was a very challenging year financially. While we ended the year with a \$4.9 Million increase in net position, our cash reserves dropped by nearly 75% as we had no launches last year and needed to make investments in facility improvements while completing reconstruction of our damaged facilities.

In 2017, we significantly improved our Net Position over FY 2016 by \$11.3 Million, an increase of 14.9% and ended the year with \$3.0 Million in Cash and Cash Equivalents, as well as producing a six-fold increase in Operating Revenues over FY 2016, ending the year with \$13.1 Million in earned Operating Revenues.

With the substantial completion of reconstruction at PSCA, we also increased our net capital assets by 4% from FY 2016. These accomplishments were a direct result of tight management of both the reconstruction and mission execution aspects of our annual operations.

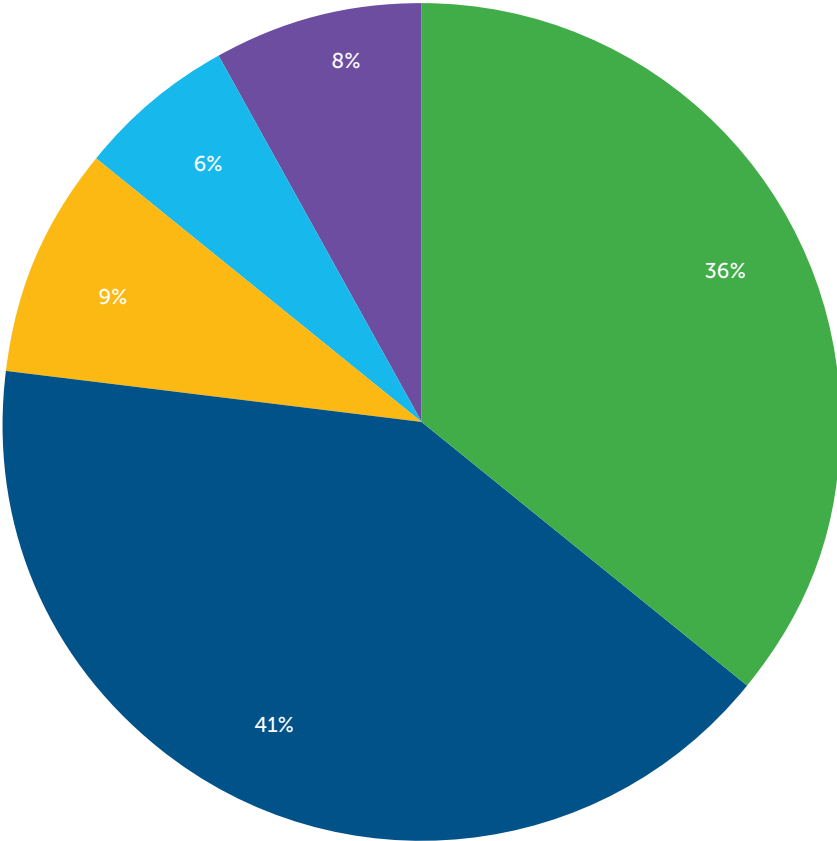
For the first time in over five years, we have launch commitments for the following year that exceed our operations of the current year. With a forecast of up to four launches in 2018 from PSCA and our support to Rocket Lab for additional launches from Launch Complex One, our financial projection for 2018 shows Alaska Aerospace could more than double our end of year cash reserves and replenish the reserves that were expended over the past few years.

Due in part to a volatile geopolitical environment facing the United States and the back-log of small and ultra-small satellite launch needs; Alaska Aerospace foresees additional opportunities for business expansion at PSCA. As we pursue these new opportunities, the success we achieved in 2017, increasing our net position over 2016, will be the benchmark for continued growth in 2018.

Finally, in FY 2016 Alaska Aerospace received a Significant Deficiency finding in our annual external audit related to "Timely Close and Reconciliation of General Ledger." A recommendation was made to evaluate current staffing and supplement as needed to ensure that accounts are fully closed and reconciled prior to an audit. We are pleased to report that through aggressive management of our financial systems and the hiring of a new Executive Financial Manager, the deficiency was corrected and in FY 2017 Alaska Aerospace received no Significant Deficiencies.



FINANCIAL PERFORMANCE



Launch Revenue  
\$148,605,114

Federal Grants  
\$167,012,435

State O&S Investments  
\$37,255,500

State Capital Investments  
\$24,040,819

LP-2 Reconstruction  
\$33,750,003





## FINANCIAL PERFORMANCE

## Statement of Net Position

YEARS ENDED JUNE 30, 2017 (WITH COMPARATIVE AMOUNTS FOR 2016)

| <i>Years Ended June 30,</i>  | <b>2017</b>         | <b>2016</b>         |
|--|---------------------|---------------------|
| <b>Assets and Deferred Outflows of Resources</b>                         |                     |                     |
| <b>Current Assets</b>  |                     |                     |
| Cash and investments   | \$3,064,795         | \$10,059,818        |
| Accounts receivable  | 3,868,892           | 435,982             |
| Unbilled receivables   | 127,881             | 129,803             |
| <b>Total Current Assets</b>  | <b>7,061,568</b>    | <b>10,625,603</b>   |
| <b>Noncurrent Assets</b>   |                     |                     |
| Capital assets not being depreciated                                     | 38,658,318          | 32,399,864          |
| Capital assets being depreciated/amortized, net                          | 47,105,563          | 50,068,461          |
| <b>Total Noncurrent Assets</b>   | <b>85,763,881</b>   | <b>82,468,325</b>   |
| <b>Total Assets</b>  | <b>92,825,449</b>   | <b>93,093,928</b>   |
| <b>Deferred Outflows of Resources</b> – related to pensions              | 900,248             | 600,855             |
| <b>Total Assets and Deferred Outflows of Resources</b>                   | <b>\$93,725,697</b> | <b>\$93,694,783</b> |
| <b>Liabilities, Deferred Inflows of Resources and Net Position</b>       |                     |                     |
| <b>Liabilities</b>   |                     |                     |
| <b>Current Liabilities</b>   |                     |                     |
| Accounts payable   | \$1,288,563         | \$5,950,492         |
| Accrued leave and compensation   | 273,223             | 259,044             |
| <b>Total Current Liabilities</b>   | <b>1,561,786</b>    | <b>6,209,536</b>    |
| <b>Noncurrent Liabilities</b>  |                     |                     |
| Unearned revenue   | 100,000             | 6,552,900           |
| Net pension liability  | 4,302,430           | 4,388,416           |
| <b>Total Noncurrent Liabilities</b>                                      | <b>4,402,430</b>    | <b>10,941,316</b>   |
| <b>Total Liabilities</b>   | <b>5,964,216</b>    | <b>17,150,852</b>   |
| <b>Deferred Inflows of Resources</b> – related to pensions               | 47,958              | 220,728             |
| <b>Net Position</b>  |                     |                     |
| Net investment in capital assets   | 85,763,881          | 82,468,325          |
| Unrestricted (deficit)   | 1,949,642           | (6,145,122)         |
| <b>Total Net Position</b>  | <b>87,713,523</b>   | <b>76,323,203</b>   |
| <b>Total Liabilities, Deferred Inflows of Resources and Net Position</b> | <b>\$93,725,697</b> | <b>\$93,694,783</b> |

## FINANCIAL PERFORMANCE

# Statements of Revenues, Expenses, and Changes in Net Position

YEARS ENDED JUNE 30, 2017 [WITH COMPARATIVE AMOUNTS FOR 2016]

| Years Ended June 30,   | 2017         | 2016         |
|--|--------------|--------------|
| <b>Operating Revenues</b>  | \$13,143,492 | \$2,124,105  |
| <b>Operating Expenses</b>  |              |              |
| Personnel services   | 1,442,575    | 3,342,926    |
| Travel   | 130,452      | 148,309      |
| Contractual services   | 9,792,170    | 3,351,277    |
| Supplies   | 1,013,073    | 315,719      |
| Equipment  | 261,778      | 801,296      |
| Depreciation and amortization                                      | 3,740,054    | 3,719,357    |
| <b>Total Operating Expenses</b>                                    | 16,380,102   | 11,678,884   |
| <b>Net operating loss</b>  | (3,236,610)  | (9,554,779)  |
| <b>Nonoperating Revenues (Expenses)</b>                            |              |              |
| Investment income (loss) unrestricted                              | 96,616       | (439,056)    |
| PERS relief from State of Alaska                                   | 82,114       | 70,808       |
| Other revenue  | 3,742,785    | —            |
| Insurance proceeds, net of loss on impairment                      | 8,098,062    | 14,105,621   |
| <b>Total Nonoperating Revenues (Expenses)</b>                      | 12,019,577   | 13,737,373   |
| Income (loss) before capital contributions                         | 8,782,967    | 4,182,594    |
| Capital contributions - State of Alaska                            | 2,607,353    | 748,770      |
| <b>Change in Net Position</b>                                      | 11,390,320   | 4,931,364    |
| <b>Net Position</b> , beginning of the year, as restated (Note 14) | 76,323,203   | 71,391,839   |
| <b>Net Position</b> , end of the year                              | \$87,713,523 | \$76,323,203 |

Wyatt Rehder,  
Technician











*"We ought not to look back unless it is to derive  
useful lessons from our errors, and for the purpose  
of profiting by dear-bought experience."*

*George Washington  
President of the United States of America*

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